Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

REVIEWS OF BOOKS.

The New Realism: Coöperative Studies in Philosophy. By EDWIN B. HOLT, WALTER T. MARVIN, WILLIAM PEPPERRELL MONTAGUE, RALPH BARTON PERRY, WALTER B. PITKIN, and EDWARD GLEASON SPAULDING. New York, The Macmillan Company, 1912.—pp. xii, 491.

This volume by the authors of "The Program and First Platform of Six Realists" is a further venture in coöperative authorship. It contains seven papers, the first of which is in the nature of an introduction. "The introductory essay," we are told, "voices our common opinions. The other essays do so only in part. It has seemed best to publish them without laboring for complete uniformity, inasmuch as their agreements quite overshadow their differences. They have been written after prolonged conferences" (p. v). The most pronounced difference is that between Messrs. Holt and Montague on the nature of consciousness; so great is this difference that it has led to the discussion by each of the other's view in the Appendix. But what strikes the reader's attention is the success with which this coöperation has been crowned. The book as a whole is remarkably homogeneous. It presents, with of course many variations, a fairly consistent body of doctrine.

Professor Marvin's contribution on "The Emancipation of Metaphysics from Epistemology" has as its purpose "to present some arguments in opposition to the belief, held by many philosophers, that the science which investigates the nature, the possibility, and the limits of knowledge is fundamental to all other sciences and to all other scientific procedure, and in particular that this science either is metaphysics or is fundamental to metaphysics" (p. 45). The course of Mr. Marvin's argument cannot be followed here; it will be possible to dwell on one or two points. Against the traditional view that logic is the science of the laws of thought, the author sets his own view that "The formulæ of logic are no more laws of thought than is the undulatory theory of light, the Mendelian law of heredity, or for that matter the recipe for cake or even an adding machine. Logic gives us no information in particular regarding the mind or the thinking process; the logician's views on such subjects might be quite erroneous without leading him astray within his proper field" (p. 52). "The logician offers us, as does any other scientist, information regarding certain terms and their relations. Some of these terms are classes, and some of these relations are the relations obtaining between classes and their members or between one class and other classes. Further, some terms studied in logic are propositions, and propositions are found to be related in a way called implication. Therefore the logician tries to learn the ways in which one proposition can be related by implication to another. Finally logic deals with a number of fundamentally different sorts of relation. As the logician puts it, some are transitive, some intransitive, some symmetrical, some asymmetrical, and so on" (p. 52). All these classes and relations obtain "quite apart from any question of human existence or human thought" (p. 53). This science of logic is thus concerned with aspects of the world about us as truly as physics is. It is nowise dependent on the theory of knowledge. Kant attempted to prove that the sciences rest on certain principles deducible from the nature of knowledge; on the contrary, what he actually did was to get his great principles first from his own scientific and metaphysical research and from the science and metaphysics of his day, and then, after reading them into the nature of knowledge, to read them out again (pp. 78–80). The same procedure has been adopted by the later transcendentalists (pp. 80–83). The revolutionary conceptions of modern science do not owe anything to epistemology; they are the results of independent study of the facts of experience. This holds good of mathematics, of physics and chemistry, and of biology. There are indeed "five important metaphysical doctrines which appear to be indebted especially to the study of knowledge: first, the doctrine of primary and secondary qualities; secondly and thirdly, the eighteenth century's criticism of the older doctrine of causation and of substance; fourthly, the idealistic, or spiritualistic, theory of reality; and fifthly, in more recent days, the issue regarding the organic, or internal, theory of relations. . . . The dogmatist has to admit that the influence of epistemology here has been very great. However, he makes this admission with a satanic delight, for he believes that the influence has been all but disastrous" (p. 87).

Professor Perry's contribution is a paper on "A Realistic Theory of Independence." In one sense this essay is a key to the whole book, for it tells us in what sense the realism of all the authors is to be understood. The 'independence' of this realism is defined as follows: "In order to prove the dependence of *a* on *b* it is necessary to show that *a* contains *b*; or that *a* is the cause or effect of *b* in a system which exclusively determines *a*; or that *a* implies *b*; or that *a* is implied exclusively by *b*. To exhibit any relation of *a* to *b* other than these is beside the point. Whether *a* and *b* be otherwise related, or not, does not affect the independence of *a*. And if it can be shown that *a* and *b* are related, and yet not dependent in any of these senses, the relation in question is by definition a non-dependent relation" (p. 117). This kind of independence can be better understood in a concrete example. "The mean velocity of the planet Jupiter, for example, neither contains nor implies the cognitive relation. Assuming that this complex is implied by the knowledge of it, and that it sustains causal relations with the subject of knowledge, it is none the less independent because of the fact that it is completely determined by other relations, such as its distance from the mass of the sun. It can be deduced, and has, as a matter of fact, been deduced, from the celestial gravitational system without reference to cognition" (pp. 130–1). If the idealist should object that while physics gives us a complete physical description of a purely physical system in which the velocity of the planet is determined by purely physical conditions, still it cannot disprove that knowledge also is a determining factor, the reply is that "it is not necessary to eliminate a condition in order to disprove its necessity. If *A* can be shown to be the cause of *B*, so that *B* can be inferred from *A* alone, this is sufficient to prove the independence of *B* on *C*, whether *C* as a matter of fact happens to be present or not. . . . Strictly speaking, it is never possible to obtain an empirical instance in which *only* the determining conditions are present." When "Galileo discovered that acceleration was a function of the time of a body's fall, he discovered that it was not a function of the body's weight or volume . . . it was sufficient for him to show that the factors, although present, *did not enter into the calculation.* We may conclude, therefore, that in so far as physical phenomena are deducible from physical causes without reference to consciousness, they are independent of consciousness, even though consciousness be present; even, indeed, though they were to prove deducible from consciousness also. In short, if physical event *B* be sufficiently determined by physical cause *A*, *B* is independent of *C*, *whatever its relation thereto*" (pp. 131–2). From this it would seem to follow that realism does not assert that a physical object can exist without consciousness of it; it merely asserts that there are objects which can be deduced from other objects without taking consciousness into consideration as one of the premises of the deduction. With this definition of independence it is clear that Mr. Perry is justified in ignoring the ego-centric predicament for realism; and it seems also clear that there is not such a sharp issue between realism and idealism as most of us had supposed.

Professor Spaulding's paper, "A Defense of Analysis," is the longest in the volume, and has, as indeed have the other papers, a value independent of the realism which the authors are concerned in establishing. The attack upon analysis which this defense is designed to meet is "the claim that analysis is identical with falsification in that very precise sense in which this term (falsification) can be defined,—namely, as involving contradiction. According to this attack, analysis is the finding, or inventing, or constructing, or discovering—or what-not—(in a whole) of *parts* which in a certain one, or in a few, or in many respects are the contradictories of the whole. For example, it holds that the analysis of motion leads to 'rests,' as terms, but that, since rest is the contradictory of motion, *either* the analysis *or* the intuition of the whole, of the motion *qua* motion, is false, and the former alternative is chosen" (p. 160). In meeting this attack Mr. Spaulding first makes a counter-attack in maintaining that "all the attacks on analysis are made by methods which themselves involve analysis or are analytical. The analysis which is attacked may be different from the analysis which is used in attacking, and so, conceivably, a specific attack might be valid. But if it were, it could serve to invalidate *only* certain kinds of analysis, to show their limitations, etc., but the invalidation could not be universal. The validity of at least the means of attack would, willy-nilly, be presupposed. Some analysis, at some point, would be exempt from successful attack and criticism" (pp. 160-1). In addition to this *argumentum ad hominem* Mr. Spaulding defends analysis on the ground that the opponents of analysis have misrepresented the results of analysis. "My defense, then, will endeavor to show that, *dismissing* that argument against analysis which is derived from the constitutive theory . . . the adequacy and validity of analysis can be demonstrated if *both* the terms *and* the organizing relations, to whose discovery analysis also leads, are considered. The attack which is really to be met is, then, not that which is grounded on the constitutive theory of relations, but, rather, the position that analysis leads to terms which are the *contradictory* of the *whole*. This position becomes *the real argument of the attacking party*. But this attack is based on the ignoring of the organizing relations, or, in some cases, on making a false analysis—which is, of course, easily attacked, or—what is much the same—on a misstatement of the actual results of correct analysis.

In the latter case the remedy is easy to apply. Consider the analysis as it is actually made, in its correct form, and its supposed falsifying character disappears. In the former case, consider the organizing relations, and again the falsification disappears. Consider both terms *and* relations *and* the properties of the whole which may be left over, but which are revealed by analysis, and the analysis becomes *adequate* at the same time that there is opportunity for that 'creative evolution,' for that creative synthesis which some of the attacking party emphasize so strongly, but which is not dependent, for its acceptance, upon the validity of their attack" (p. 168).

Professor Montague's essay is on "A Realistic Theory of Truth and Error." This theory is worked out on the basis of the theory of consciousness which is familiar to the readers of his previously published articles. In this essay he leads us to this theory by showing that "there is no merely objective situation but what can be adequately described as some function or complex of our three ultimates—space, time, and quality. But there are two categories that we are accustomed to recognize in our world which we do not find in the system just portrayed. First, no place can be found in this system for 'causality,' *i. e.*, for a thing *determining and being determined by* other things. And secondly, no place can be found for 'consciousness,' *i. e.*, for a thing *cognizing and being cognized by* other things. The system before us is purely descriptive and purely objective and contains no trace of the productive or the subjective functions. That both causality and consciousness are real *in some sense*, none will deny. That an otherwise adequate description of the world which leaves one of them out should leave out the other also, is, as I shall try to show, profoundly significant of the relation between them" (p. 264). After an examination of the rival historical theories of causality and consciousness, with the conclusion that they are inadequate, Mr. Montague is led to the view that these theories are inadequate because they treat causality and consciousness as unrelated to each other. "The last chance of attacking the problem successfully would seem to lie in the possibility that these antinomies if matched against each other might, like the two equally unintelligible halves of a picture puzzle, dovetail together and reveal a clear and harmonious whole. Let us try this. The substantist declared that a cause-effect implication resided in each event, but the positivist has shown that such potentiality could not be any new kind of quality. *Suppose that this cause-effect potentiality, which from the objective point of view can only be defined indirectly as a possibility of other events, were itself and actu-*

ally the CONSCIOUSNESS of those other events" (p. 279). This would reconcile the conflicting claims of the rival theories. "This is, I believe, the true theory of the nature of consciousness and of its relation to the objective world which it reveals and in which it abides" (p. 281). On this view error and hallucination can be explained. "The cerebral state, whether initiated from within the organism, as in spontaneous thought and in hallucination, or whether initiated from without as in perception, will be conscious of such objects as it implies or of which it is the potentiality. What will these implicates or objects be? My answer is that *they will consist of the events which would most simply have caused the cerebral state and of the events which the latter would produce as effects if it acted alone and uninterfered with.* Now we know that if we single out some one event and inquire as to its cause, that we shall find a plurality of possible antecedents, any one of which if it had not been counteracted would have produced it. . . . It follows from this that the implicate, or conscious object of any brain state may be, but need not be, an event which actually exists. When the implied possible cause actually exists, then there will be consciousness of a reality which, as we have seen, constitutes true knowledge or *truth;* when, on the other hand, the cerebral implicate which is the simplest or most natural of the possible causes happens not to have been the actual cause, or happens not to exist, then we shall have apprehension of what is unreal, which is false knowledge or *error*" (pp. 286–287).

Professor Holt deals with "The Place of Illusory Experience in a Realistic World." After glancing at various arguments against realism, he expresses impatience with their futility until he comes to the case of hallucinations. "I confess that this is the first of the arguments allotted to me in which I can see enough plausibility to enable me to meet the adversary with either amiability or patience. I heartily grant the propriety of our opponent's question, How can realism pretend to assert the reality of the color, sound, and perhaps tactile or olfactory sensations which are vividly present in the dreams of a person sleeping, it may be, in a box no bigger than his coffin?" (p. 313). This question leads to the examination of the status of the secondary qualities in the real world. The Müllerian position on this subject, based on the theory of the specific energy of nerves, is shown to have no empirical support: "nerve physiology has not been able to discover any trace of specific nerve-energies" (p. 315). On the other hand, "certain recent discoveries have shown something about the nervous impulse which both does away with old conceptions and introduces rather extraordinary new ones. That something is, that the nervous impulse, and particularly the sensory nervous impulse, presents periodic fluctuations of a frequency vastly higher than was hitherto suspected. In the words of Professor Sherrington, 'The number of separable excitatory states (impulses) engendered in a nerve-trunk by serially repeated stimuli corresponds closely with the stimuli in number and rhythm. Whether the stimuli follow each other once per second or five hundred times per second, the nervous responses follow the rhythm of stimulation . . . '" (p. 321). Further 'excellent and abundant evidence' is adduced and referred to in support of this conclusion, involving the existence "of minute periodic fluctuations in the nerve-impulse, and of a close correspondence, in the cases of audition and color-vision, between these fluctuations and the vibration rates of the impinging physical stimuli" (p. 330). The author turns from the study of nerve impulse to an examination of recent results of introspective study of the experience of secondary qualities. The result can perhaps best be given in these words: "A paradigm than which nothing clearer can be desired is a series of light touch stimuli given at an ever increasing rate. The single tap is called a conscious (secondary) quality. A pair in slow succession is already a form-quality, with all the vaunted charms of novelty, uniqueness, and what not; yet I will not believe that even amid such delights any one can for an instant find there anything more than two taps plus temporal organization (I grant that this last consists of more than mere twoness). A pair given in more rapid succession is another form-quality. . . . It is not entirely different, but it is different, and by just as much as the difference of temporal organization has altered it. Here too the unity of the whole does not infringe on the distinctness of the parts. As the taps are given in faster and faster succession, however, there comes a time when encroachment sets in. . . . The integral aspect is approaching that to which we give the name roughness (but is not yet roughness), and the attention is drawn ever and anon from this to the other aspect, which now consists in an attempt to count the taps and to articulate the number with the tongue. . . . As now the rate of tapping increases the unified aspect approaches the (form-) quality of roughness, and more and more tends to usurp the attention; while the succession-of-parts aspect becomes vaguer. . . . This last persists up to very much higher rates, dying down only at about 600 taps per second. Meanwhile the roughness has become a distinct quality in its own right . . ." (pp. 341–342). "Indeed, the actual experience of the taps strongly suggests that the quality *is* the number of taps per unit of time (*i. e.*, their *density*) as distinguished from the (perceived) time interstices between them . . ." (p. 344). Thus Mr. Holt's conclusion is that "time-division and number ('*Anzahl*') of taps per time-unit are distinct though inseparable parts of this sequence, and that this *latter* feature *is* just the quality of roughness" (p. 345). Realism is now in a position to answer the question as to the reality of the secondary qualities in the experience of the dreamer in the box. "Realism, I say, can assert" this reality "because the nervous system, even when unstimulated from without, is able to generate within itself nerve-currents of those frequencies whose density factor is the same as in ordinary peripheral stimulation" (p. 352). But the hallucinatory consciousness "is *not* in the skull, but is 'out there' precisely wherever it appears to be" (p. 353). Here, however, I fail to understand Mr. Holt. For the "realist does also not assert that an unreal thing (image or whatsoever) is a real thing" (p. 358). How then on these premises can the realist assert the reality of the color seen by the dreamer? Since the realist makes the distinction between "reality and being or subsistence" (p. 358), it would seem that what he should assert is not the unreality and the subsistence of the secondary qualities 'out there,' but the reality of these qualities in the nervous system. Mr. Holt concludes with a paragraph from which I will make some quotations. "The picture which I wish to leave is of a general universe of being in which all things physical, mental, and logical, propositions and terms, existent and non-existent, false and true, good and evil, real and unreal *subsist*. . . . A mind or consciousness is a class or group of entities within the subsisting universe, as a physical object is another class or group. . . . A consciousness is the group of (neutral) entities to which a nervous system, both at one moment and in the course of its life history, responds with a specific response" (pp. 372–3). This paper makes us look forward with eagerness to the promised volume "The Concept of Consciousness," by the same author.

Professor Pitkin's paper on "Some Realistic Implications of Biology" I find to be the most difficult to do justice to in this review. It is a most interesting and illuminating discussion of questions that have to be faced, but the treatment is so concise and so many points are touched upon, that it is impossible to single out any which shall give a general impression of the whole. So far as I am competent to form a judgment on biological conceptions, I should say that the author has succeeded in his effort to get a scientific survey of a region which has been used as the happy hunting ground of the obscurantist biological philosopher. It would seem as if no one who cares to deal conscientiously with the philosophical implications of biology can afford to neglect this very keen analysis of the pertinent facts. Mr. Pitkin regards consciousness as a projection field of a projectorial system of which the reagent is the projectorial referent and the environment is the projected complex. Hallucinations and errors are treated on the principle that "*entities in certain relations are real indiscernibles, and that their identity in such complexes as are determined only by those relations is just as genuine as their differences in complexes otherwise determined*" (p. 465).

The volume so inadequately sampled in the preceding review is one that may fairly be called epoch-making, so far as anything can be so called when it is of such recent appearance. If the realism of the type that has sprung up in so many different quarters in the English speaking world is going to be something more than a passing fad, then this volume in all likelihood is going to stand in the same relation to the development of this realism as Locke's *Essay* stands to English empiricism. But even should realism not succeed in outliving the day of its lusty birth, at least the painstaking work here represented should be for some time to come a point of departure for a more thorough and detailed study of the problems which have so far been attacked only wholesale by both pragmatists and idealists. Nothing more stimulating and more promising and more 'like business' has appeared in philosophical literature for many a day.

It is a pity that the publishers did not do their part in the production of such a notable work so well as the authors. The stinginess of the page margins makes it almost impossible to annotate while reading. And misprints are not infrequent.

EVANDER BRADLEY MCGILVARY.

UNIVERSITY OF WISCONSIN.

Conduct and its Disorders Biologically Considered. By CHARLES ARTHUR MERCIER. London, Macmillan and Co., 1911.—pp. xxiii, 377.

Dr. Mercier says that while many departments of conduct have been exhaustively studied, there has never been any comprehensive study of conduct as a whole. His aim is to supply this deficiency in our knowledge by an investigation of conduct in all its phases for the purpose of showing how every mode of conduct can be accounted for on biological grounds and what its value is in securing the survival of man in the struggle for existence. I should have thought it rather